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Jay D. Kellogg
ATTORNEY FOR APPLICANT

3/30/95

DATE OF SIGNATURE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of)

JEAN M. CLEMENT)

on METHOD FOR PRODUCING PULP)
FROM PRINTED UNSELECTED)
WASTE PAPER)

Serial No.: 08/054,951)

Filed: April 27, 1993)

) (Our Docket No. 2605-01-1-IREI)

Hartford, Connecticut, March 30, 1995

H/As-4596
Hon. Assistant Secretary and Commissioner
of Patents and Trademarks
Washington, D.C. 20231

APPELLANTS' APPEAL BRIEF

Sir:

This appeal is taken from the final rejection dated June 1, 1994, in which claims 1-18 and 49-52 of the above-referenced application were rejected under 35 U.S.C. Sec. 251.

STATUS OF THE CLAIMS

Claims 1-18 and 49-52 are pending in this application.

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STATUS OF AMENDMENTS

The claims stand amended as set forth in the Preliminary Amendment dated April 27, 1993. No amendments to the claims were made subsequent to this date.

SUMMARY OF THE INVENTION

The present invention is directed to a method of treating a mixture of printed and contaminated waste paper in order to produce a pulp for use in the manufacture of paper and paperboards. The contaminants include non-ink contaminants such as, for example, pigments, fixating polymers, varnishes, binders, plastics, metal pieces and soil. The non-ink contaminants further include low melting point materials referred to by those skilled in the art as "stickies", such as, for example, hot melts, binders and plastics.

According to the invention, a first aqueous fibrous suspension of contaminated waste paper is formed at temperature below the melting point of the non-ink contaminants by applying mechanical energy sufficient to form a pulpable slurry and also release the non-ink contaminants from the surface of the paper fibers. It is important to emphasize here that in the present invention the non-ink contaminants are released from the surface of the paper fibers without being dispersed as finely divided particles throughout the first aqueous fibrous suspension.

After the non-ink contaminants are released from the surface of the fibers, they are removed from the first aqueous fibrous suspension by screening and cleaning to form a second aqueous fibrous suspension, which is substantially free of non-ink contaminants. The second fibrous suspension is subjected, at a consistency of more than 15%, to the simultaneous action of temperature, pressure, mechanical energy and chemical dosing sufficient to insure softening of the ink vehicles, detachment of the ink particles from the surface of the fibers and dispersion of the detached ink

particles into the second fibrous suspension. Since the second fibrous suspension does not include non-ink contaminants, this suspension is subjected to higher temperatures and energy inputs than are used on the first fibrous suspension before removal of the non-ink contaminants.

After the ink vehicles have been soften and the ink particles detached from the surface of the fibers and dispersed, the ink particles are removed from the second fibrous suspension to provide a brightness of at least 59 ISO in the final pulp. Removal of the ink particles from the second aqueous fibrous suspension is typically achieved by washing and froth filtration.

ISSUES

One issue to be resolved is whether this broadening reissue application was filed outside the two-year statutory period provided for in 35 U.S.C. § 251.

A further issue is whether the errors relied on by the appellant are correctable by reissue.

A still further issue is whether the declaration filed with this reissue application is defective because it fails to particularly specify each error relied on and how the errors relied on occurred.

GROUPING OF CLAIMS

Claims 49-52 stand rejected under 35 U.S.C. § 251 as being broadened in a reissue application filed outside the two year statutory period.

All of the claims 1-18 and 49-52 have been rejected under 35 U.S.C. § 251 as lacking basis for reissue.

ARGUMENT

I. This broadening reissue application was filed within the two-year statutory period provided for under 35 U.S.C. § 251.

Claims 49-52 have been rejected under 35 U.S.C. § 251 as being broadened in a reissue application filed outside the two year statutory period. In particular, the Examiner argues that the present reissue application is considered not to be timely filed since it is not entitled to the benefit of the parent reissue application, SN 600,012. The Examiner contends that the parent reissue was not a broadening reissue, and that the parent reissue application lacked basis for reissue. These arguments will be addressed separately, since it is understood from the Examiner's Final Action that they form alternative grounds for denying appellant the benefit of the filing date of SN 600,012.

A. Parent reissue application was a broadening reissue.

With respect to the Examiner's argument that parent reissue application was not a broadening reissue, it should be noted that the parent reissue application included 48 claims. Parent reissue claims 1-18 were identical to the claims of the '179 patent. As to parent reissue claims 19-48, these claims were narrower in several respects than the claims of the original patent, but were also broader in some respects as compared to the claims of the '179 patent. For example, the numerical limitations regarding temperature, mechanical energy and pH recited in steps (a)-(d) of claim 1 of the '179 patent are eliminated in steps (a)-(d) of parent reissue claim 19.

It is well-settled that where reissue claims are broader in some respects than the claims of the issued patent and narrower in other respects, the reissue application is considered a broadening reissue. Ball v. U.S., 221 USPQ 289, 296 (Fed.Cir. 1984); MPEP 1412.03. The claims of parent reissue application SN 600,012 squarely meet the requirements for a broadening reissue as set forth in the case law and Patent Office practice by virtue of being broader in at least some respects than the claims of the '179 patent. Accordingly, the Examiner's rejection of claims 49-52 on the basis that appellant cannot rely on the filing date of the parent reissue application because it was not a broadening reissue should be reversed.

B. Parent reissue claims 19-42 describe an invention fully disclosed in the '179 patent.

As noted above, the Examiner further denies the present application the benefit of the parent reissue application because SN 600,012 lacked basis for reissue. In support of this argument, the Examiner contends that parent reissue claims 19-48 were not for the invention disclosed in the original '179 patent.

Appellant disagrees. In fact, a fair reading of the specification of the '179 patent shows that the invention described in claims 19-48 is clearly disclosed in this patent. In this regard, it should be noted that the process described in parent reissue claims 19-48 relates not only to removing the non-ink contaminants from the pulp fibers prior to detaching and dispersing the ink, but also to rendering the fibers and mineral fillers usable for pulp and board making. This aspect of the invention is fully disclosed in the '179 patent at column 7, line 3 to column 8, line 21. Note also, Figure 1, elements 9-13.

Not only is the Examiner incorrect in stating that the invention of parent reissue claims 19-48 was not disclosed in the '179 patent, but also the Examiner fails to express a consistent position regarding the effect of such disclosure. At the bottom of page 2 of the Final Action, the Examiner states that SN 600,012 lacks basis for reissue because it was not for the invention disclosed in the original patent. Then on page 7, the Examiner states that "It is of no moment if claims 19-48 were disclosed in the '179 patent. The claims 19-48 of SN 600,012 lacked basis for reissue." The Examiner cannot deny appellant the benefit of the parent reissue by arguing that claims 19-48 of that application fail to describe an invention disclosed in the '179 patent, and then argue that "it is of no moment" if such claims do, in fact, describe such an invention.

Appellant submits that the statute resolves the conflicting statements made by the Examiner with respect to the disclosure issue and the propriety of parent reissue claims 19-48. 35 U.S.C. § 251 authorizes reissue of a patent for an invention disclosed in that patent, where, among other things, the applicant has, through error, claimed less than he had a right to. Since, as pointed out above, the invention described in parent reissue claims 19-48 was fully disclosed in the original '179 patent, the Examiner's rejection of reissue claims 49-52 based on the failure of claims 19-48 to describe an invention disclosed in the '179 patent should be reversed.

- C. This reissue application is entitled to the benefit of the filing date for parent reissue application SN 600,012, because the parent reissue application fully meets the requirements set forth in the statute for filing a broadening reissue application.

The Examiner further denies Appellant the benefit of the filing date of SN 600,012 since, in the Examiner's view, parent reissue claims 19-48 are not drawn to

the same invention as claims 1-18 of the '179 patent. The Examiner's argument is not well-taken because it assumes a requirement for filing reissue applications nowhere found in the patent statute, Patent Office practice or the supporting case law.

With respect to the issue of appellant being entitled to the benefit of the filing date for the parent reissue, it is irrelevant whether parent reissue claims 19-42 describe an invention which is the same as that described in claims 1-18 of the '179 patent or the non-elected claims 14-32 of the original application, SN 482,623. For the purposes of filing a broadening reissue application, all that the statute requires is that such an application be filed within two years from the issue date of the original patent and that the reissue claims describe an invention disclosed (not claimed as the Examiner argues) in the original patent. Since, as pointed out above, parent reissue application SN 600,012 was both a broadening reissue application and contained claims describing an invention fully disclosed in the '179 patent, the parent reissue application fully meets the filing requirements set forth in § 251. Accordingly, appellant is entitled to rely on the filing date of SN 600,012 for the purposes of filing the present reissue application.

As long as a broadening reissue is filed within the two-year period set forth in § 251, there is nothing which prevents applicant from presenting broadened claims beyond the expiration of this period in a continuation application, even where such claims are broader than the claims of the original patent and the broadening reissue claims originally submitted. This is the case, of course, where, as here, the continuation application meets all the statutory requirements of copendency, continuity of inventorship and reference to earlier application set forth in 35 U.S.C. § 120. Buell v. Beckstrom, 22 USPQ 2d 1128, 1132 (Bd. of Pat. App. and Inter. 1992). It is important to note that in Buell, the Board held that the reissue applicant was not precluded by the two year limitation set forth in § 251 from filing broadened claims in a division of a pending reissue application filed almost four years after the issue date of

the original patent. The Board further noted that reissue applications continuing from reissue applications are also within the scope of § 120. Citing, In re Bauman, 214 USPQ 585 (CCPA 1982). See also, In re Doll, 164 USPQ 218, 220 (CCPA 1970); MPEP 1412.03.

Thus, since parent reissue application SN 600,012 was properly filed as a broadening reissue, the present reissue application is entitled to the benefit of the filing date of the parent under § 120. Accordingly, the filing of the present reissue application fully conforms with the two year limitation set forth in § 251.

II. The errors relied on by the appellant are correctable by reissue.

The Examiner has rejected claims 1-18 and 49-52 as lacking basis for reissue, since, in the Examiner's opinion, the errors set forth by appellant are not correctable by reissue. This is the case, according to the Examiner, because appellant is attempting to recapture subject matter deliberately narrowed during the original prosecution in order to obtain the patent.

To support this argument, the Examiner cites Mentor Corp. v. Coloplast, Inc., 27 USPQ 2d 1521 (Fed.Cir. 1993). What the Examiner apparently fails to acknowledge is the Court's statement in this case that:

The recapture rule does not apply where there is no evidence that amendment of the originally filed claims was in any sense an admission that the scope of the claims was not in fact patentable.

Mentor Corp., 27 USPQ 2d at 1524; See also, Seattle Box Co., Inc.. v. Industrial Crating & Packing, Inc., 221 USPQ 568, 574 (Fed. Cir. 1984).

In this regard, it is important to note that during prosecution of the application which matured into the '179 patent claim limitations with respect to temperature, mechanical energy and pH were added in the Preliminary Amendment filed on January 27, 1986 and in the Amendment filed on December 23, 1986. In

neither case did the amendments result in allowance of the claims. Instead, the Examiner steadfastly continued to maintain her rejection of the claims under the Burns reference.

It is absolutely clear from the file history of the '179 patent that, rather than the claim amendments directed to temperature, mechanical energy and pH, the factor that finally resulted in the Examiner issuing a Notice of Allowance was the declaration submitted by Mr. Michael Burns on March 7, 1988. In his declaration, Mr. Burns stated unequivocally that the process disclosed in his paper could not possibly achieve the results obtained by the process disclosed by the applicant.

Thus, in view of the prosecution history of the '179 patent, it cannot be maintained that applicant admitted that claims which do not have limitations directed to the temperature, mechanical energy and pH were not patentable. Accordingly, the recapture rule as interpreted by the Examiner does not apply in this case.

III. The reissue declaration properly specifies the errors relied on and how those errors occurred.

The Examiner considers the reissue declaration filed in this application as defective because, in the Examiner's view, it does not specify the errors relied on and how those errors occurred. Appellant disagrees.

Pages 4 and 5 of appellant's reissue declaration particularly identify the errors in the room temperature and specific mechanical energy recitations of claim 1, step (a), and the temperature, mechanical energy and pH recitations set forth in claim 1, (c) and (d). Moreover, the appellant's declaration explains why these recitations are in error in view of the nature of the invention, the teachings of the prior art, and the knowledge of those skilled in the art. Appellant fails to understand how the errors relied on could be expressed more clearly.

The reissue declaration also clearly explains, at pages 6 and 7, when and how the errors relied on occurred. The appellant states in his declaration that the errors arose prior to 1987 during the prosecution of the applications which matured into the '179 patent, SN 822,943 and its parent application, SN 482,623. The appellant further states that these errors arose because of his failure to understand, and his attorneys' failure to explain, how the processing conditions under which the first fibrous suspension is formed and those of the softening, detaching and dispersing steps could be made more definite without reciting the specific parameters set forth in claim 1.

Appellant is a French citizen with only very limited knowledge of U.S. patent law and practice. Thus, it is not at all surprising that he failed to recognize that original claim 1 could be narrowed without adding the specific limitations recited therein. It is also not clear on what valid basis the Examiner questions the explanation set forth in the reissue declaration as to why the invention was not fully appreciated by appellant's attorneys during prosecution of the applications on which the '179 patent was granted. The declaration clearly states that appellant did not meet with his U.S. attorneys in person until 1992 and that his U.S. attorneys prosecuted the original applications primarily through an associate attorney located in Italy. The reissue declaration also provides specific examples of how appellant's U.S. attorneys failed to fully understand the technology and scope of the invention in its broadest terms.

In view of the completeness of the reissue declaration with respect to when and how the errors relied on occurred, it is appellant's view that the rejection of the claims as based on a defective reissue declaration should be reversed.

In view of the foregoing, Appellant respectfully requests that the Board reverse the Examiner's rejection of the claims and order continued prosecution of this reissue application on the merits of the claimed invention.

A check in the amount of \$140.00 to cover the fee for filing an appeal brief is enclosed. Petitions for a two month extension of time to file this appeal brief have already been submitted. Any additional fees that may be required should be charged to our Deposit Account No. 13-0235.

Respectfully submitted,

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APPENDIX

1. A method of treating a mixture of printed and contaminated waste paper in order to produce a pulp for use in the manufacture of paper and paperboards, said waste paper containing non-ink contaminants including stickies, which method comprises:
 - (a) forming a first aqueous fibrous suspension of said waste paper at room temperature by applying specific mechanical energy lower than 50 KW.H/Ton to form a pumpable slurry and to release substantially all of the non-ink contaminants including the stickies, from the surface of the paper and without dispersing such non-ink contaminants as finely divided particles throughout the fibrous suspension;
 - (b) removing substantially all of the non-ink contaminants including the stickies, which have been released without dispersal as finely divided particles from the first fibrous suspension by screening and cleaning at room temperature to form a second aqueous fibrous suspension substantially free of the non-ink contaminants including the stickies;
 - (c) after the step of removing the non-ink contaminants softening the ink vehicles and weakening their binding with the surface of the fibers by submitting the second fibrous suspension at a consistency of more than 15% to the simultaneous actions of (A) a high temperature between 85° and 130°C., (B) high shear forces substantially corresponding to a specific mechanical energy of more than 50 KW.H/Ton applied at the said consistency of more than 15% and (C) at least one deinking agent under strong alkaline conditions having a pH of at least 9; and

- (d) detaching the ink particles from the surface of the fibers and dispersing them into the second fibrous suspension by submitting the second fibrous suspension to the simultaneous actions of (A) high temperature between 85° and 130°C., (B) high shear forces substantially corresponding to a specific mechanical energy of more than 50 KW.H/Ton applied at the said consistency of more than 15% and (C) at least one chemical dispersing agent, under strong alkaline conditions having a pH of at least 9 whereby higher specific energy inputs and higher temperatures are used to detach the ink particles from the fibers of the second fibrous suspension after removal of the non-ink contaminants;
- (e) limiting the total duration of the ink softening and detaching steps (c) and (d) to range between 2 and 20 minutes and
- (f) removing the detached ink particles from the second fibrous suspension to provide a brightness of at least 59 ISO the final pulp.

2. The method of claim 1 wherein the specific energy applied to the fibrous suspension during the forming step (a) is applied for approximately 20 minutes.

3. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are conducted at a pressure higher than the atmospheric pressure.

4. The method of claim 1 wherein the total duration of the ink softening and detaching steps (c) and (d) is kept between 3 and 5 minutes.

5. The method of claim 1 wherein the total specific energy applied during the ink softening and detaching steps (c) and (d) is about 80 KW.H/Ton.

6. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are performed simultaneously in a single apparatus.

7. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are performed separately in two different pieces of equipment.

8. The method of claim 1 wherein the removing of the ink particles from the fibrous suspension is achieved by washing.

9. The method of claim 1 wherein the alkalinity of the fibrous suspension in steps (c) and (d) is obtained by adding any one of the following chemicals:

sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium hydroxide, sodium carbonate, sodium phosphate, sodium tripolyphosphate, sodium pyrophosphate, sodium silicate.

10. The method of claim 1 wherein an oxidizing agent is added during the ink softening and detaching steps (c) and (d).

11. The method of claim 1 wherein a bleaching action is performed during the ink softening and detaching steps (c) and (d).

12. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are performed simultaneously in a triturator.

13. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are performed simultaneously in a disintegrator.

14. A method of claim 1 wherein the ink softening and detaching steps (c) and (d) are performed separately in a steaming chamber followed by disperser.

15. The method of claim 1 wherein the step of removing the ink particles from the fibrous suspension is achieved by froth flotation.

16. The method of claim 1 wherein the step of removing the ink particles from the fibrous suspension is achieved by washing and froth flotation.

17. The method of claim 1 wherein the alkalinity of the fibrous suspension in steps (c) and (d) is obtained by adding a mixture of chemicals selected from the group consisting of, sodium hydroxide, potassium hydroxide, calcium

hydroxide, magnesium hydroxide, sodium carbonate, sodium phosphate, sodium tripolyphosphate, sodium pyrophosphate, sodium silicate.

18. The method of claim 1 wherein the ink softening and detaching steps (c) and (d) are achieved at a consistency between 25% and 30%.

49. A method of treating a mixture of printed and contaminated waste paper in order to produce a pulp for use in the manufacture of paper and paperboards, said waste paper containing non-ink contaminants including stickies which method comprises:

- (a) forming a first aqueous fibrous suspension of said waste paper at a temperature below the melting point of the non-ink contaminants by applying specific mechanical energy sufficient to form a pumpable slurry and to release substantially all of the non-ink contaminants including the stickies from the surface of the paper without dispersing such non-ink contaminants as finely divided particles throughout the fibrous suspension;
- (b) removing substantially all of the non-ink contaminants including the stickies, which have been released without dispersal as finely divided particles from the first fibrous suspension by screening and cleaning to form a second aqueous fibrous suspension substantially free of the non-ink contaminants including the stickies;
- (c) after the step of removing the non-ink contaminants, (1) softening the ink vehicles and weakening their binding with the surface of the fibers, and then (2) detaching the ink particles from the surface of the fibers and dispersing the particles into the second fibrous suspension by submitting the second fibrous suspension at a consistency of more than 15% to the simultaneous actions of

temperature, pressure, specific energy and chemical dosing sufficient to insure softening of the ink vehicles, detachment of the ink particles from the surface of the fibers and dispersion of the detached ink particles into the second fibrous suspension, whereby higher specific energy inputs and higher temperatures are used to detach the ink particles from the fibers of the second fibrous suspension after removal of the non-ink contaminants than are used on the first fibrous suspension before removal of the non-ink contaminants;

- (d) limiting the total duration of step (c) (1) and (c) (2) to a range between 2 and 10 minutes and
- (e) removing the detached ink particles from the second fibrous suspension to provide a brightness of at least 59 ISO in the final pulp.

50. The method of claim 49 wherein the specific mechanical energy applied in step (a) is lower than 50 KW.H/Ton.

51. The method of claim 49 wherein step (c) (1) is carried out at a temperature above the melting point of the non-ink contaminants.

52. The method of claim 49 wherein step (c) (2) is carried out at a temperature above the melting point of the non-ink contaminants.